

Amendments to the Claims:

This listing of claims will replace all prior version, and listings, of claims in the application:

Listing of Claims:

Claims 1-11. (Canceled).

12. (Previously Presented) A sensor system, comprising:

a sensor to measure a gas parameter of a test gas;

a measuring element that is accommodated in a housing and projects therefrom at least on a test gas side at a protruding section;

a test-gas line, through which the test gas flows, the test gas line including a sensor insertion opening;

a receiving element for the housing which surrounds the insertion opening and is attached to the test-gas line; and

an assembly aid that reproducibly creates a predefined alignment of the protruding section of the measuring element in the test gas, and includes an allocation element situated at the housing and oriented with respect to an installation position of the measuring element, and further includes an allocation element situated at the receiving element and oriented with respect to the test-gas;

wherein the receiving element has an internal thread having a piercing point, the piercing point of the internal thread forming the allocation element oriented with respect to the test-gas,

wherein the housing has an external thread having a piercing point, which is able to be screwed into the internal thread, the piercing point of the external thread forming the allocation element oriented with respect to the measuring element, and

wherein the housing is fixed in the receiving element via a predefined tightening torque.

13. (Previously Presented) The sensor system as recited in claim 12, wherein the sensor is configured to measure an oxygen concentration in exhaust gas of an internal combustion engine, and the test-gas line is an exhaust gas pipe.

14. (Previously Presented) The sensor system as recited in claim 12, wherein a marking, which provides an orientation for the installation of the measuring element and is oriented with respect to the piercing point of the external thread, is positioned on the housing.

15. (Previously Presented) The sensor system as recited in claim 14, wherein the marking is a blind hole radially introduced into the housing.

16. (Currently Amended) ~~[[The]]~~ A sensor system as recited in claim 12, comprising:
a sensor to measure a gas parameter of a test gas;
a measuring element that is accommodated in a housing and projects therefrom at least on a
test gas side at a protruding section;
a test-gas line, through which the test gas flows, the test gas line including a sensor insertion
opening;
a receiving element for the housing which surrounds the insertion opening and is attached to
the test-gas line; and
an assembly aid that reproducibly creates a predefined alignment of the protruding section
of the measuring element in the test gas, and includes an allocation element situated at the housing
and oriented with respect to an installation position of the measuring element, and further includes
an allocation element situated at the receiving element and oriented with respect to the test-gas;
wherein:
the receiving element has a housing support shoulder; ~~and~~
the housing has a radial flange that rests on the housing support shoulder and is
configured to be tightened to the housing support shoulder via a hollow screw that overlaps
the housing; ~~[[,]] and wherein~~
the allocation element situated at the receiving element is an axial groove which
runs in a region of the internal thread and runs out freely at a front end; ~~[[,]] and~~
the allocation element situated at the housing is a projection which protrudes radially
over a periphery of the housing and projects into the axial groove in a form-locking manner
at least in a width of the groove.

17. (Previously Presented) The sensor system as recited in claim 16, wherein the projection
is integrally formed in one piece on the housing.

18. (Previously Presented) The sensor system as recited in claim 16, wherein the projection
is part of an insertion pin fixed in a radial bore hole in the housing.

19. (Previously Presented) The sensor system as recited in claim 16, wherein the projection
is part of a flat insertion ring, which lies on the housing on a flange surface of the radial flange
facing the hollow screw and is configured to be connected to the housing in a rotationally fixed
manner.

20. (Previously Presented) The sensor system as recited in claim 19, wherein the insertion
ring is pressed against the housing.

21. (Previously Presented) The sensor system as recited in claim 19, wherein the periphery of the housing has a flat section, and the insertion ring is bent in a ring region allocated to the flat section such that the ring region lies flat against the flat section.

22. (Previously Presented) The sensor system as recited in claim 21, wherein the bent ring region lies diametrically opposite the projection.

23. (Previously Presented) The sensor system as recited in claim 12, wherein the receiving element is a hollow connecting piece that is insertable into a wall opening into a line wall of the test-gas line and is welded to the line wall.

24. (New) The sensor system as recited in claim 16, wherein the sensor is configured to measure an oxygen concentration in exhaust gas of an internal combustion engine, and the test-gas line is an exhaust gas pipe.

25. (New) A sensor system, comprising:

a sensor to measure a gas parameter of a test gas;

a measuring element that is accommodated in a housing and projects therefrom at least on a test gas side at a protruding section;

a test-gas line, through which the test gas flows, the test gas line including a sensor insertion opening;

a receiving element for the housing which surrounds the insertion opening and is attached to the test-gas line; and

an assembly aid that reproducibly creates a predefined alignment of the protruding section of the measuring element in the test gas, and includes an allocation element situated at the housing and oriented with respect to an installation position of the measuring element, and further includes an allocation element situated at the receiving element and oriented with respect to the test-gas;

wherein:

the receiving element has an internal thread and a housing support shoulder;

the housing has a radial flange that rests on the housing support shoulder and is configured to be tightened to the housing support shoulder by screwing into the internal thread an external thread of a hollow screw that overlaps the housing;

the allocation element situated at the receiving element is an axial groove which runs in a region of the internal thread and runs out freely at a front end; and

the allocation element situated at the housing is a projection which protrudes radially over a periphery of the housing and projects into the axial groove in a form-locking manner at least in a width of the groove.

26. (New) The sensor system as recited in claim 25, wherein the projection is integrally formed in one piece on the housing.

27. (New) The sensor system as recited in claim 25, wherein the projection is part of an insertion pin fixed in a radial bore hole in the housing.

28. (New) The sensor system as recited in claim 25, wherein the projection is part of a flat insertion ring, which lies on the housing on a flange surface of the radial flange facing the hollow screw and is configured to be connected to the housing in a rotationally fixed manner.

29. (New) The sensor system as recited in claim 28, wherein the insertion ring is pressed against the housing.

30. (New) The sensor system as recited in claim 28, wherein the periphery of the housing has a flat section, and the insertion ring is bent in a ring region allocated to the flat section such that the ring region lies flat against the flat section.

31. (New) The sensor system as recited in claim 30, wherein the bent ring region lies diametrically opposite the projection.